



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,593	12/31/2003	Joseph Patino	CE11882JEM	8591

7590 08/25/2006  
Larry G. Brown  
Motorola, Inc.  
Law Department  
8000 West Sunrise Boulevard  
Fort Lauderdale, FL 33322

EXAMINER
BOATENG, ALEXIS ASIEDUA

ART UNIT	PAPER NUMBER
2838	

DATE MAILED: 08/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/750,593

Applicant(s)

PATINO ET AL.

Examiner

Alexis Boateng

Art Unit

2838

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14, 16-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 14, and 16- 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 – 4, 6, 10 – 12 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Toya (U.S. 6,040,680).

**Regarding claims 1 and 19,** Toya discloses a method for charging a battery, comprising the steps of:

supplying a charging current to a battery through a first charging circuit (figure 2 item 120; column 6 lines 1 – 8);

sensing the charging current to the battery (figure 2 item 125);

selectively signaling an electric device from the battery to indicate at least one parameter of the battery as the battery is receiving the charging current (column 6 lines 29 – 56);

in response to selectively the electronic device, disabling a second charging circuit (column 6 lines 1 – 8: the protection circuit cuts off the current supplied to the control circuit, item 120, which disables the circuit).

**Regarding claim 2,** Toya discloses wherein the charging current is from a wireless charger (figure 1 item 101).

**Regarding claims 3 and 12,** Toya discloses wherein the parameter is at least one of a charging state of the battery and predetermined current threshold of the charging current (column 6 lines 1 – 8 and lines 41 – 57).

**Regarding claim 4,** Toya discloses wherein the battery signals the electronic device over an input/output line and wherein the input/output line is a preexisting reading conductor (figure 2 item 105).

**Regarding claim 6,** Toya discloses wherein the second charging circuit (figure 2 item 127) is located in the electronic device (the battery is intrinsically located within the electronic device). For an alternative view wherein the charging circuit is inside the electronic device, see the 103 rejection below.

**Regarding claim 10,** Toya discloses a method for charging a battery, comprising the steps of:

- an electronic device (figure 1 item 103);

- a charger (figure 2 item 101); and

- a battery (figure 2 item 111), wherein the battery supplies power to the electronic device wherein the charger supplies a charging current to a battery through a first charging circuit (figure 2 item 120; column 6 lines 1 – 8); and wherein the battery includes a charging monitor that senses the charging current (figure 2 item 125);

- selectively signaling an electric device from the battery to indicate at least one parameter of the battery as the battery is receiving the charging current (column 6 lines 29 – 56: current sensing circuit 125 indicates that the battery is receiving charge);

Art Unit: 2838

in response to selectively the electronic device, disabling a second charging circuit (column 6 lines 29 – 56: charging circuit 123 is stopped).

**Regarding claim 11**, Toya discloses wherein the charger is wireless charger (figure 1 item 101; column 1 lines 1 – 17) and the charging monitor is a processor (column 7 lines 24 – 38).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4-5, 13, and 14, are rejected under 35 U.S.C. 103(a) as being unpatentable over Toya (U.S. 6,040,680) in view of Watts (U.S. 2002/0175658).

**Regarding claims 4, 5, 13 and 14**, Toya does not disclose the invention as claimed. Watts discloses in figure 2 wherein the battery signals the electronic device over an input/output line, figure 2 items 16 and 17, and wherein the input/output line is a preexisting reading conductor, figure 2 item 15. Watts discloses wherein the preexisting reading conductor is a thermistor, figure 2 item 15. At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the Toya system with the Watts system so that the controller can monitor the temperature and charging operations of the system.

Art Unit: 2838

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Toya (U.S. 6,040,680) in view of Goto (U.S. 5,600,225).

**Regarding claim 6,** Toya does not disclose the invention as claimed. Goto discloses in figure 2 wherein the second charging control circuit, item 209 is located within the electronic device. At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the Toya system with the Goto system so that the electronic device controls its own charging to prevent damage of the device.

6. Claim 7-8, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toya (U.S. 6,040,680) in view of Sengupta (U.S. 6,320,354).

**Regarding claim 7 and 16,** Toya does not disclose wherein the method comprises the step of updating a charging indicator of the electronic device. Sengupta discloses in column 5 lines 52 – 65 wherein a charge indicator is used to identify the level of charge. At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the Toya system with the Sengupta system so that the system shows the user when the battery needs to be charged and when charging should be stopped.

**Regarding claim 8 and 17,** Toya does not disclose the invention as claimed. Sengupta discloses in column 3 line 50 – column 4 line 33 wherein controller toggles the between input/output line between a high state, a low state and a release state during the signaling step. At the time of invention, it would have

been obvious to a person of ordinary skill in the art to modify the Toya system with the Sengupta system so that controller can be recharged.

7. Claims 9 and 18 rejected under 35 U.S.C. 103(a) as being unpatentable over Chao (U.S. 6,057,668) in view of Sengupta (U.S. 6,320,354).

**Regarding claim 9,** Chao discloses supplying a charging current from a wireless charger to a battery in column 1 lines 47 – 45 and sensing a the charging current in figure 1 item 12. Chao further discloses in figure 1 item 134 and in column 3 line 6 – 18 wherein the battery indicates to the electronic device at least one parameter of the battery as the battery is receiving the charging current. Chao discloses the invention as previously claimed, but does not disclose the remainder. Sengupta discloses in column 3 line 50 – column 4 line 33 wherein the system selectively switches between high and low states an input/output lines between an electronic device. At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the Chao system with the Sengupta system so that controller can be recharged.

**Regarding claim 18,** Chao discloses in column 1 lines 6 –10 wherein the charger is used is contact-free, but does not disclose wherein the charging monitor is a processor. Sengupta discloses in figure 5 item 507 (identified as item 506 in specification), wherein the charging monitor is a processor. At the time of invention, t would have been obvious to a person of ordinary skill in the art to modify the Chao system with the Sengupta system because it is more efficient to monitor the charge by using specific programs.

8. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sengupta (U.S. 6,320,354) in view of Toya (U.S. 6,040,680).

**Regarding claim 20**, Sengupta discloses an electronic device comprising a processor (figure 5 item 507); an input/output line coupled to the processor (figure 4 items 414 (output line) and 416 (input line)); a charging circuit (figure 5 item 404); a charging indicator (figures 7-9); wherein the processor is programmed to detect signals over the input/output line and in response to the detection of the signals (column 3 line 50 – column 4 line 33), and updating the charging indicator (column 5 lines 52 – 65). Sengupta discloses the invention as claimed, but does not disclose wherein a second charging circuit and the processor is further programmed to perform at least one of disabling the second charging circuit. Toya discloses in column 6 lines 1 – 8 wherein charging is ceased when it becomes too high. At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the Sengupta system with the Toya system so that damaging overcharge is prevented.

### ***Response to Arguments***

8. Applicant's arguments with respect to claims 1, 10, and 19 have been considered but are moot in view of the new ground(s) of rejection.
9. Applicant's arguments filed 6/01/06 have been fully considered but they are not persuasive. **Regarding claims 9 and 18**, the applicant argues that the battery voltage



Art Unit: 2838

input does not provide an indication to a parameter of the battery while the battery is receiving charging current. Sengupta discloses in column 5 lines 52 – 65 wherein the level of battery voltage is given while charging. The applicant further argues that there is no motivation or suggestion to implement an input/output line in the Chao system. Even though the Chao system uses magnetic induction as opposed to metal contacts, information is still transferred (input and output) between the two systems which is considered an input/output line.

### ***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 2838

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexis Boateng whose telephone number is (571) 272-5979. The examiner can normally be reached on 8:30 am - 6:00 pm, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Karl Easthom can be reached on (571) 272-1989. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AB

  
KARL EASTHOM  
SUPERVISORY PATENT EXAMINER